

DIVISION 1- GENERAL REQUIREMENTS

SECTION 01000

SUMMARY OF WORK

PART I - GENERAL

1.01 SECTION INCLUDES

- A. Description of Work
- B. Contractor Use of Site and Premises
- C. Intent of Contract Documents
- D. Copies of Contract Documents Furnished to Contractor
- E. Supplemental Drawings
- F. Coordination

1.02 SUMMARY OF WORK

- A. The work under this contract includes the installation of approximately 1100 linear feet of new 8-inch diameter PVC Water Main on East Washington Street and North Pinckney Street from Jay Street to just east of Pinkney. The work includes connecting the new water main to the existing 6" water main at Orange Drive and to the existing 6-inch water main on East Marshall Street. The work also includes connecting the new water main to existing and new meters and abandoning the existing 3-inch galvanized steel water main. Traffic control is included.
- B. The work required on this project is located within the Virginia Department of Transportation (VDOT) Right-of-Way (ROW). The construction contractor will be responsible for obtaining the VDOT land use permit, paying all applicable fees and obtaining bonds as required by the VDOT permit.
- C. A VDOT construction contractor will be installing a new 12-inch water main and street improvements west of Jay Street concurrent with this project. The new 8-inch water main in this project ultimately will connect to the new 12-inch water main.

1.03 PROGRESS OF THE WORK

- A. Start of Work: The Work shall be started within 10 Days following the date stated in the Notice to Proceed and shall be executed with such progress as may be required to prevent delay to other contractors or to the general completion of the Project. The Work shall be executed at such items and in or on such parts of the Project, and with such forces, material and equipment, as to assure completion of the Work in the time established by the Contract.

Additionally, the Contractor shall, at all times, schedule and direct his Work so that it provides an orderly progression of the Work to completion within the specified time for completion.

1.04 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Unfavorable Construction Conditions: During unfavorable weather, wet ground, or other unsuitable construction conditions, the Contractor shall confine his operations to Work which will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would adversely affect the quality or efficiency thereof, unless special means or precautions are taken by the Contractor to perform the Work in a proper and satisfactory manner. The Contractor shall, however, maintain suitable all-weather access to all portions of the Work Site.
- B. Site Administration: The Contractor shall be responsible for all areas of the Site used by him and all subcontractors in the performance of the Work. He shall exert full control over the actions of all employees and other persons in the use and preservation of property and existing facilities except such controls as may be specifically reserved for the Owner or others. The Contractor may require all persons on the Site to observe the same regulations as he requires of his employees and representatives. Owner's employees, Authorized Representatives, Consultants, the Engineer and the Engineer's employees will not be subject to the provisions of this paragraph.

1.05 INTENT OF CONTRACT DOCUMENTS

- A. Contract Documents Complementary: All Work called for in the Contract Documents applicable to this Contract, but not shown in the Drawings in their present form, or shown in the Drawings and not specifically called for in the Specifications, shall be of like effect as if shown or mentioned in both. Work not specified in either the Drawings or in the Specifications, but involved in carrying out their intent or in the complete and proper execution of the Work, is required, and shall be performed by the Contractor as though it were specifically delineated or described.
- B. Omission or Silence of Contract Documents: The apparent silence of the Contract Documents as to any detail, or the apparent omission from them of a detailed description concerning any Work to be performed or materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only materials and Workmanship of the best quality are to be used and interpretation of these Specifications shall be made upon that basis.

1.06 COPIES OF DOCUMENTS FURNISHED TO CONTRACTOR

- A. Number of Copies to be Furnished: The Contractor will be furnished, at no cost, 4 copies of the Contract Documents. Additional copies of Contract Documents when requested will be furnished to the Contractor at cost of reproduction.

- B. Copies of Contract Documents for Subcontractors: The Contractor shall, without expense to Owner, furnish each of the subcontractors, manufacturers, and materialmen such copies of the Contract Documents as may be required for his Work.
- C. Record Copy of Contract Documents: The Contractor shall keep one record copy of all specifications, Drawings, Addenda, modifications, and shop drawings at the Contractor's office at the Site, if applicable, in good order and annotated to show all changes made during the construction process. Such Documents shall be made available to the Engineer and shall be delivered to the Owner upon completion of the Work.

1.07 SUPPLEMENTAL DRAWINGS

- A. Supplemental Drawings: When, in the opinion of the Engineer, it becomes necessary to explain more fully the Work to be done, or to illustrate the Work further, or to show any changes which may be required, Drawings known as Supplemental Drawings with specifications pertaining thereto will be prepared by the Engineer and 10 copies thereof will be given to the Contractor.
- B. Clarification Procedure: The Contractor may request a clarification of the Drawings or Specifications from the Engineer through the following procedure:
 - 1. Forms: The standard clarification form shall be used. The upper portion of this form shall be completed and signed by the Contractor. The completed form shall be forwarded to the Engineer for a response. The Contractor should indicate a preferred reply date.
 - a. The Engineer will assign the clarification a sequential number.
 - b. The Engineer will review the clarification with the appropriate parties and Owner if necessary.
 - c. The Engineer will complete and sign the lower portion of the clarification.
 - d. A copy of the completed clarification will be returned to the Contractor.
 - e. The completed clarification distribution will be noted on the clarification form.
 - f. A copy of the completed clarification will be sent to the Owner.
 - 2. Clarification Log: A clarification log will be maintained by the Engineer and will be used to review the status of outstanding clarifications during each progress meeting.

1.08 COORDINATION

- A. Contractor to Verify: The Contractor shall verify all dimensions, quantities and details shown on the Drawings and Supplemental Drawings, equipment, material, finishes, and other such listings or other data received from the

Engineer, and shall notify him of all errors, omissions, conflicts and discrepancies. This shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction, or improper operation resulting therefrom, or from rectifying such conditions at his own expense. He shall not be allowed to take advantage of any errors or omissions. All equipment, materials, finishes, and other such listings are given for the convenience of the Engineer and Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quality of materials and equipment included in Work to be done under the Contract.

1.09 COORDINATION WITH OTHER CONTRACTORS

- A. Owner has the right to employ other contractors at the Site of the project. During the progress of the Work other contractors may be engaged in other work on the Project or on other projects at the site. In such event, the contractor shall coordinate the Work to be done hereunder with the work of other Contractors. The Virginia Department of Transportation (VDOT) will be constructing new water main and other street improvements west of Jay Street. The contractor shall coordinate work with VDOT and the VDOT contractor as needed.

1.10 SATISFACTORY COMPLETION OF WORK

- A. All Work, whether it be within a highway right-of-way, neighboring jurisdictions, or private easements, shall be completed to the satisfaction of Owner. It is hereby understood that Owner shall be the final approving body as to the acceptability of the Work, regardless of prior approval from other jurisdictions.

PART 2 – PRODUCTS - (Not Used)

PART 3 – EXECUTION - (Not Used)

END OF SECTION

SECTION 01310

PROJECT MEETINGS, SCHEDULES AND REPORTS

PART 1 - GENERAL

1.01 PROJECT MEETINGS

A. PRECONSTRUCTION CONFERENCE:

1. Owner will conduct a meeting within twenty (20) days after the Effective Date of Agreement, but before Contractor starts the work, to review items stated in the agenda and to establish a working understanding between the parties as to their relationships during conduct of the Work. The conference shall be attended by:
 - a. Contractor and his Superintendent.
 - b. Representatives of principal Subcontractors and suppliers.
 - c. Owner or his representative.
 - d. Engineer
2. Agenda:
 - a. Projected construction schedules.
 - b. Critical work sequencing.
 - c. Project Coordination.
 - d. Procedures and processing of:
 - i. Field decisions.
 - ii. Substitutions.
 - iii. Submittals.
 - iv. Change Orders.
 - v. Applications for Payment.
 - e. Procedures for testing.
 - f. Procedures for maintaining Record Documents.
 - g. Use of premises:
 - i. Office, work and storage areas.
 - ii. Owner's requirements.
 - h. Construction facilities, controls and construction aids.
 - i. Temporary utilities.
 - j. Safety and first-aid.
 - k. Security.

3. Location of Meeting: Owner's office at 10 W. Marshall Street in Middleburg, Virginia.

B. CONSTRUCTION PROGRESS MEETINGS:

1. Engineer will hold periodic progress meetings during construction. Contractor shall participate in such meetings accompanied by his Subcontractors as requested by Engineer.
2. Location of meetings: Owner's office in Middleburg, Virginia.

1.02 SCHEDULES AND REPORTS

A. INITIAL COORDINATION SUBMITTALS: Within ten (10) days after the Effective Date of Agreement, Contractor shall submit to Engineer for review and acceptance:

1. A preliminary Work progress schedule.
2. A tentative procurement schedule.
3. A tentative schedule of values for partial pay purposes.
4. A tentative schedule of Submittals, as stated in SECTION 01330.
5. Certification of insurance or copies of policies, all as described in the Contract Documents.
6. Emergency Contact Numbers

B. WORK PROGRESS SCHEDULE:

1. After submittal of preliminary Work Progress Schedule, Contractor shall submit a detailed Work progress schedule within thirty (30) days after the Effective Date of Agreement. Submit to Owner for acceptance.
2. The schedule shall show the Work in a graphic format suitable for displaying scheduled and actual progress.
 - a. Prepare schedule as a horizontal bar chart with separate bar for each major portion of the Work or operation.
 - b. The schedule shall also show the Work broken down into major phases and key items with the dates Work is expected to begin and be completed. Sequence of listings shall be in the chronological order of the start of each item of Work.
 - c. Scale and spacing shall allow space for notations and revisions.
 - d. Sheet size: Minimum 11 by 17 inches.
3. The Contractor shall provide sub-schedules to define critical portions of entire schedule.

4. Owner will review and comment on schedule and, upon agreement with Contractor on any necessary changes, Owner will furnish Contractor prints of the accepted schedule. Contractor shall not change the accepted Work progress schedule without prior concurrence of Owner.
5. The Contractor shall submit to Owner for acceptance an updated schedule at least once each month. Schedule shall show actual progress and any proposed changes in the schedule of remaining Work. Submit updated schedule for any major change or delay.

C. PROCUREMENT SCHEDULE:

1. After submittal of preliminary procurement schedule, the Contractor shall submit a detailed procurement schedule for equipment and materials to be furnished by Contractor, or his Subcontractors, manufacturers, and suppliers, and which are not known to be regularly stocked by local suppliers or readily available upon short notice. Submit to Owner for acceptance with the Work Progress Schedule.
2. Owner will review and comment on the procurement schedule and, upon agreement with Contractor concerning any necessary changes, the schedule will be accepted.
3. Procurement schedule shall coincide with the Work progress schedule and shall indicate the date each item will be needed at the site, the time required for delivery after order is placed, and whether or not Submittals are required.
4. The Contractor shall update the accepted procurement schedule at least once each month and submit with the Work progress report to show the status of orders placed, Submittals, and delivery.
5. The Contractor shall furnish to Owner, if so requested, copies of any purchase order placed by him or his Subcontractors.

D. WORK PROGRESS REPORTS:

1. The Contractor shall submit monthly a report on actual Work progress. More frequent reports may be required should the Work fall behind the accepted schedule.
2. Work progress reports shall consist of marked copies of prints made from the accepted Work progress schedule, and a narrative report, which shall include but not be limited to the following:
 - a. A description of current and anticipated delaying factors, if any.
 - b. Impact of possible delaying factors.

- c. Proposed corrective actions.
- 3. A Work progress report shall accompany each application for partial payment. Work reported complete but not readily apparent to Owner must be substantiated with supporting data.

1.03 CLOSE-OUT INSPECTION

Before submitting the final application for payment, the Engineer, the Contractor, Subcontractors, and other interested parties having jurisdiction over the project (VDOT, etc.), will conduct an inspection of the completed work. The purpose of the inspection will be to ascertain that the work is complete and according to the Contract Documents, those record drawings, warranties, and the documents required for operation and maintenance personnel have been delivered, and that all regulatory requirements have been met fully.

The Engineer will arrange the inspection upon notification by the Contractor that the project is completed, and he will invite all parties for whom attendance is optional. Upon successful completion of the inspection, the application for payment, affidavits, waivers and any required post construction bonds may be delivered to the engineer for his review and, if approved, transmitted to the Owner for payment.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 01330

SUBMITTALS

PART 1 - GENERAL

1.01 GENERAL

- A. The Contractor shall submit to the Engineer for review and approval such shop drawings, test reports and product data on materials and equipment (hereinafter in this article called data), and material samples (hereinafter in this article called samples) as are required for the proper control of work, including but not limited to those shop drawings product data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. Within thirty (10) days after the effective date of the Agreement, the Contractor shall submit to the Engineer a complete list of preliminary data on items for which Shop Drawings are to be submitted. Included in this list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way expressed or implied relieve the Contractor from submitting complete Shop Drawings and providing materials, equipment, etc., fully in accordance with the Specifications. The procedure is required in order to expedite final review of Shop Drawings.
- C. The Contractor is to maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting with the Owner and the Engineer. This log should include the following items:
 - 1. Submittal-Description and Number assigned.
 - 2. Date to Engineer.
 - 3. Date returned to Contractor (from Engineer).
 - 4. Status of Submittal (Approved, Approved as Noted, Revise and Return, Rejected).
 - 5. Date of Resubmittal and Return (as applicable).
 - 6. Date material release (for fabrication).
 - 7. Projected date of fabrication.
 - 8. Projected date of delivery to site.
 - 9. Specification Section.
 - 10. Drawings Sheet Number.

1.02 TYPES OF SUBMITTALS

- A. Shop drawings for manufactured or fabricated items, schedules, diagrams and like material prepared specially for this project.
- B. Product Data which include pre-printed material, manufacturer's descriptive literature, illustrations, catalog data, performance charts and the like intended to identify a part of the work but not necessarily prepared exclusively for this Contract.
- C. Samples which include physical examples of products, materials, assemblies or workmanship which are identical to a portion of the work and which establish standards for materials, workmanship, or appearance of the finished work.
- D. Administrative data to include information required to support the administrative requirements of the contract as called for in the specifications.

1.03 PROCEDURE FOR SUBMITTALS

- A. General
 - 1. Except where specifically stated otherwise all submittals shall be made to the Engineer for his approval. Submittals of all but administrative data shall be made in at least seven (7) copies. Four (4) copies of the submittal will be retained by the Engineer/Owner and the other copies returned to the Contractor. Submittals shall be complete for each component of work or system and shall include all inter-related portions of a system. At the completion of the project, the Contractor shall furnish the Engineer one (1) revised record copy as described in Section 01330 Paragraph 1.06J.
 - 2. Administrative data shall be submitted in triplicate (3 copies).

1.04 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check all drawings, data and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of the Drawings and data shall bear the Contractor's stamp showing that they have been checked. Shop drawings submitted to the Engineer without the Contractor's stamp will be returned to the Contractor for

conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the Contract Documents.

- B. Engineer's Contract Drawings or specifications shall not be reproduced for the purpose of making shop drawings.
- C. Determine and verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with Specifications.
- D. The Contractor shall furnish the Engineer a schedule of Shop Drawings submittals fixing the respective dates for the submission of shop drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment at the Pre-construction meeting. This schedule shall indicate those submittals that are critical to the progress schedule.
- E. The Contractor shall ensure that no work is begun on any item of work requiring an approved submittal until such approval is obtained.
- F. The Contractor shall not begin any of the work covered by a drawing, data, or a sample returned marked "REVISE AND RETURN / APPROVAL CONTINGENT UPON SUBMITTAL OF ADDITIONAL INFORMATION" or "REJECTED" until a revision or correction thereof has been reviewed and returned to him, by the Engineer, with approval.
- G. One (1) approved copy of all submittals shall be held by the Contractor at the construction site.
- H. Each submittal shall be assigned a sequential number by the Contractor, for purposes of easy identification, and shall retain its assigned number with appropriate subscript, on required resubmissions. The assigned number shall consist of the Contract Number, followed by the specification section number where the item is specified, followed by a sequential number indicating the number of submittals in that Section (e.g., WR/CC-1-03300-11 is the 11th separate submittal for items specified in Section 03300). Resubmittals shall be identified with the same number as the original submittal, followed by the R1, R2, etc. All products and materials submitted shall be clearly identified with the appropriate equipment name and number as it appears in the Contract Document.
- I. The Contractor shall submit to the Engineer all drawings and schedules sufficiently in advance of construction requirements to provide no less than

ten (10) working days for reviewing and appropriate action from the time the Engineer receives them.

- J. All submittals shall be accompanied with a transmittal letter prepared in triplicate containing the following information:
 - 1. Date.
 - 2. Project Title and Number.
 - 3. Contractor's name and address.
 - 4. The Number of each Shop Drawing, Project Data, and Sample submitted.
 - 5. Notification of Deviations from Contract Documents.
 - 6. Submittal Log Number conforming to Specification Section Numbers.
- K. The Contractor shall submit a minimum of seven (7) copies of shop drawing submittals to the Engineer.
- L. The Contractor shall be responsible for and bear all costs of damages which may result from the ordering of any material or from proceeding with any part of work prior to the completion of the review by Engineer of the necessary Shop Drawings.
- M. The Contractor shall be fully responsible for observing the need for and making any changes in the arrangement of piping, connections, wiring, manner of installation, etc., which may be required by the materials/equipment he proposed to supply both as pertains to his work and any work affected under other parts, heading, or divisions of drawings and specifications at no cost to the Owner.

1.05 ENGINEER'S REVIEW OF SHOP DRAWINGS

- A. The Engineer's review of drawings, data and samples submitted by the Contractor will be only for conformance with the design concept of the Project and for general compliance with the information given in the Contract Documents. The Engineer's review and approval will not constitute an approval of dimensions, quantities, and details of the material, equipment, device, or item shown.
- B. The review of drawings and schedules will be general, and shall not be construed:
 - 1. as permitting any departure from the Contract requirements;

2. as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;
 3. as approving departures from details furnished by the Engineer, except as otherwise provided herein.
 4. as approving Contractor's means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto.
- C. If the drawings or schedules as submitted describe variations and show departure from the Contract requirements which the Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Engineer may return the reviewed drawings without noting and exception.
- D. When reviewed by the Engineer, each of the Shop Drawings will be identified as having received such review being so stamped and dated. Shop Drawings stamped "REVISE AND RETURN" and with required corrections shown will be returned to the Contractor for correction and resubmittal.
- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, to revisions other than the corrections requested by the Engineer on previous submissions. The Contractor shall make any corrections required by the Engineer.
- F. If the Contractor considers any correction indicated on the drawings to constitute a change to the Contract Drawings or Specifications, the Contractor shall give written notice thereof to the Engineer.
- G. Shop drawings and submittal data shall be reviewed by the ENGINEER for each original submittal and first resubmittal; thereafter review time for subsequent resubmittals will be charged to the CONTRACTOR at the rate of \$75 per hour.
- H. When the Shop Drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- I. No partial submittals will be reviewed. Submittals not complete will be returned to the Contractor for resubmittal. Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items for:
1. Systems

2. Processes
3. As indicated in specific specifications sections.

1.06 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "Shop Drawings" shall be all drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a Supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.
- B. Manufacturer's catalog sheets, brochures, diagrams, illustrations and other standard descriptive data shall be CLEARLY MARKED TO IDENTIFY PERTINENT MATERIALS, PRODUCT OR MODELS. Delete information which is not applicable to the Work by striking or cross-hatching. Model numbers shall be accompanied with a description.
- C. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the Engineer and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.
- D. Each Shop Drawing shall have a blank area 3-1/2 inches by 3-1/2 inches, located adjacent to the title block. The title block shall display the following:
 1. Project Title and Number
 2. Name of project building or structure
 3. Number and title of the shop drawing
 4. Date of shop drawing or revision
 5. Name of contractor and subcontractor submitting drawing
 6. Supplier/manufacturer.
 7. Separate detailer when pertinent
 8. Specification title and number
 9. Specification section
 10. Application Contract Drawing Number
- E. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the CONTRACTOR SHALL DESCRIBE SUCH VARIATIONS IN THE LETTER OF TRANSMITTAL. The transmittal letter shall delineate compliance and exceptions taken to Specifications and Contract Drawings. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails

to describe such variations, he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed.

- F. Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material. Materials and equipment lists shall give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.
- G. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained.
- H. All manufacturers or equipment suppliers who propose to furnish equipment or products shall submit an installation list to the Engineer along with the required shop drawings. The installation list shall include at least five (5) installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.
- I. Only the Engineer will utilize the color "red" in marking Shop Drawing submittals.
- J. Before the final payment is made, the Contractor shall furnish to Engineer one (1) set of record shop drawings all clearly revised, complete and up to date showing the permanent construction as actually made.

1.07 SAMPLES

- A. The Contractor shall furnish, for the approval of the Engineer, samples required by the Contract Documents or requested by the Engineer. Samples shall be delivered to the Engineer as specified or directed. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until approved by the Engineer.
- B. Samples shall be sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of the of the product, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
 - 3. A minimum of three samples of each item shall be submitted.

C. Each sample shall have a label indicating:

1. Name of project
2. Name of Contractor and Subcontractor
3. Material or Equipment Represented
4. Place of Origin
5. Name of Producer and Brand (if any)
6. Location of Project

(Samples of finished materials shall have additional marking that will identify them under the finished schedules).

D. The Contractor shall prepare a transmittal letter in triplicate for each shipment of samples containing the information required in Section 01330 Paragraph 1.04J above. Contractor shall enclose a copy of this letter with the shipment and send a copy of this letter to the Engineer. Approval of a sample shall be only for the characteristics or use named in such approval and shall not be constructed to change or modify any Contract requirements.

1.08 MANUFACTURER'S LIST

Within thirty (30) days after receipt of a Notice to Proceed, and before ordering any equipment or materials, the Contractor shall submit to the Engineer for approval a complete list of proposed manufacturers and fabricators for all materials and equipment to be used in this Contract. The purpose of this submittal is to allow the Engineer to predetermine the acceptability of proposed suppliers before issuance of purchase orders by the Contractor. Submission and acceptance of the manufacturers' list shall neither relieve the Contractor from submitting detailed shop drawings and product data for all materials and equipment nor shall it constitute prior acceptance of any specific item of equipment prior to submittal of shop drawings. After submission and acceptance of the manufacturers' list, the Contractor shall not deviate from the named suppliers and manufacturers without written approval from the Engineer.

1.09 MIX DESIGNS

Mix designs shall be submitted for concrete, grout, and bituminous paving. Mix design shall indicate all materials used in the product and their respective relative quantities. In any one mix design all quantities shall be expressed either by weight or volume insofar as it is practical to do so. The Contractor's attention is directed to Section 03300 of these Specifications for proportioning and testing requirements of concrete.

1.10 RECORD DRAWINGS

The Contractor will keep one (1) copy of all Specifications, Drawings, Addenda, Change Orders and Shop Drawings at the site, in good order and annotated to show all changes made during the construction process. These shall be available to the Engineer and shall be delivered to him upon completion of the project. If the Contractor fails to maintain the record drawings as required herein, final payment with respect to the Contract as a whole will be withheld until proper record drawings have been furnished to the Engineer.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION NOT USED

END OF SECTION 01330

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SECTION 01450

QUALITY CONTROL

PART 1 – GENERAL

1.01 QUALITY ASSURANCE

The Contractor shall:

- A. Supervise performance of work in such manner and by such means to ensure that work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during construction period.
- B. Ensure that persons performing work are qualified to produce workmanship of specified quality.
- C. Ensure work is performed by mechanics skilled in their trades. Ensure complete installations present neat, organized, coordinated and clean cut appearance.
- D. Monitor quality control over products, suppliers, manufacturers, services, site conditions and workmanship to ensure work complies with Contract Documents.
- E. Comply with specified reference standards as minimum quality for the work except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- F. Should specified reference standards conflict with Contract Documents, request clarification in writing from Engineer before proceeding.
- G. Not alter the contractual relationship of parties to Contract from Contract Documents by mention or inference otherwise in any reference.
- H. Inspect each item of materials or equipment immediately prior to installation. Reject damaged and defective items.
- I. Recheck measurements and dimensions of work as an integral step of starting each installation.
- J. Clean and protect work in progress and adjoining work on basis of continuous maintenance. Apply protective covering on installed work where it is required to ensure freedom from damage or deterioration at time of Substantial Completion. Remove coverings when no longer needed.

1.02 EXAMINATION OF CONDITIONS

The Contractor shall:

- A. Examine substrates and conditions under which work is to be performed. Report unsatisfactory conditions detrimental to proper and timely execution of work to Contractor with copy to Engineer.

- B. Not proceed with work until unsatisfactory conditions have been corrected.
- C. Acknowledge that commencement of installation constitutes acceptance of conditions and cost of any corrective measures are responsibility of installer.
- D. Verify that equipment will be installed in accordance with applicable codes and regulations, Contract Documents and referenced standards.
- E. In event of discrepancy with existing conditions, immediately notify Construction Manager. Do not proceed with installation in areas of discrepancy until such discrepancies have been fully resolved.

1.03 COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS

The Contractor shall:

- A. Require compliance with manufacturer's printed installation instructions, including each step in sequence. Do not omit preparatory steps or installation procedures unless specifically modified or exempted by Contract Documents.
- B. Maintain one set of complete instructions at jobsite during installation and until completion.
- C. Should job conditions or specified requirements conflict with manufacturer's instructions, request clarification in writing from Engineer before proceeding.

1.04 PRODUCT INSTALLATION

The Contractor shall:

- A. Handle, install, erect, connect, condition, use, adjust and clean products in strict accord with manufacturer's instructions and in conformity with specified requirements.
- B. Install work true to line, plumb and level.
- C. Verify and coordinate clearances, dimensions and installation of existing utilities.
- D. Verify dimensions for products to be fitted into work. Whenever a stock manufactured product is specified, verify actual space requirements for setting or placing into allotted space. No extra cost will be allowed for adjustment of work to accommodate particular product.

- E. Provide attachment and connection devices and methods for securing work. Secure in place with devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
- F. Allow for expansion of materials and building movement.
- G. Isolate each unit of work from incompatible work as necessary to prevent deterioration and electrolytic action.
- H. Adjust operating products and equipment to ensure smooth and unhindered operation.

1.05 FIELD SAMPLES

- A. Field samples are defined as a partial installation of selected materials installed at project site for Engineer's review and approval of visual features and workmanship. Generally, field samples are incorporated into the work.
- B. The Contractor shall provide field samples at site as required by individual specification sections. Field samples shall be erected at location acceptable to Engineer; perform work in accordance with applicable specification sections.
- C. Construct complete, including work of related trades required in finished work.
- D. Approved samples will serve as standard of quality and workmanship of work; The Contractor shall maintain samples until completion of relevant work.
- E. Upon completion of work or when directed by Engineer, the Contractor shall demolish field samples and remove from site, unless accepted by Engineer as part of completed Work.

1.06 MOCK-UPS

- A. Mock-ups are defined as full size assemblies that incorporate several materials or elements of construction erected for Engineer's review and approval of visual features and workmanship.
- B. The Contractor shall provide mock-ups as required by individual specification sections.
- C. Unless specified or directed otherwise, the Contractor shall erect mock-ups to display visual features and workmanship at project site and mock-ups for testing at site of testing laboratory.

- D. The Contractor shall perform work in accordance with applicable specification sections.
- E. Approved mock-ups will serve as standard of quality and workmanship of work; The Contractor shall maintain mock-ups until completion of relevant work.
- F. Upon completion of relevant work or when directed by Engineer, the Contractor shall demolish and remove mock-ups, unless accepted by Engineer as part of completed work.

1.07 FIELD INSPECTIONS

- A. The Owner will provide sufficient competent personnel for general inspection of the Work. The Contractor shall grant the Engineer and inspectors access to the work when it is in preparation or progress, and provide proper facilities for such access and inspection. The Contractor shall furnish the Inspector with all required assistance to help thorough inspection or the culling over or removal of defective materials or for the thorough examination into any of the work performed.
- B. Inspectors may not accept for the Owner any material or workmanship that does not conform fully to the requirements of the contract and they shall give no orders or directions under any possible circumstances not according to the Specifications. An Inspector may stop the work entirely if there is not a sufficient quantity of suitable and approved material or equipment on the work site to carry it out properly, or for any good and sufficient cause.
- C. If the specifications, the Engineer's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the Engineer, of the date and time fixed for such inspection. Engineer will make his inspections promptly, and where practicable at the source of supply. Any work covered up without approval or consent of an Inspector or the Engineer must, if required by the Engineer or the Inspector, be uncovered for examination and properly restored at the Contractor's expense.
- D. The Engineer may order reexamination of any Work. If so ordered, the Contractor must uncover the Work. If such Work is according to the Contract Documents, the Owner shall pay the cost of reexamination and replacement. If such Work is not according to the Contract Documents, the Contractor shall bear such cost.

- E. The Contractor shall promptly correct any Work rejected as defective or as failing to conform to the Contract Documents, whether observed before or after Substantial Completion, and whether or not fabricated, installed or completed. The Contractor shall correct any Work found defective or nonconforming within a period of one year from the Date of Substantial Completion of the Contract or within such longer period as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents. The provisions of this Paragraph apply to Work done by Subcontractors and Work done by direct employees of the Contractor.

1.08 TESTING LABORATORY SERVICES

The Contractor shall:

- A. Conform to the testing requirements of each Section of the Specifications. Where no testing requirements are set forth, the Contractor will employ and pay for services of independent consultants to perform specialized inspections, tests, or other services deemed necessary.
- B. Perform services according to requirements of governing authorities and with specified standards.
- C. Submit reports to Engineer in duplicate, giving observations and results of tests, indicating compliance or non-compliance with specified standards and with Contract Documents.
- D. Cooperate with Testing Laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.
 - 1. Notify Engineer and Testing Laboratory 24 hours prior to expected time for operations requiring testing services.
 - 2. Make arrangements with Testing Laboratory and pay for additional samples and tests done for Contractor's convenience.

PART 2 - PRODUCTS - Not used

PART 3 - EXECUTION - Not used

END OF SECTION

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SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 WATER

Coordinate with the Engineer and the Owner regarding use of Town water for testing, disinfection and other uses.

1.02 SANITARY FACILITIES

Provide and maintain in sanitary condition facilities and enclosures as may be required to comply with local, state and federal health regulations. Maintain facilities from date work commences until relieved of this obligation by the Engineer.

1.03 CONSTRUCTION AIDS

Provide and operate drainage and pumping equipment; maintain excavations and site free of standing water.

1.04 BARRIERS

- A. Provide as required to prevent public entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades and covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings. When working in public roads, conform fully to the requirements contained in the VDOT permit.
- C. Provide barriers around trees and plants designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuously running water.

1.05 CLEANING DURING CONSTRUCTION

Control accumulation of waste materials and rubbish; collect and periodically dispose of accumulations off-site.

1.06 REMOVAL

- A. Remove temporary materials, equipment, services, and construction offices and sheds prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities. Remove underground installations to a depth of two (2) feet; grade site as shown.
- C. Restore existing facilities used during obstruction to specifications, or to original conditions.

1.07 MAINTENANCE OF TRAFFIC

Maintain a vehicle travel lane open at all times on East Washington Street, North Pinckney Street, Orange Drive and East Marshall Street. Maintain traffic flow patterns and traffic safety and control devices in accordance with the VDOT permit requirements and the maintenance of traffic (MOT) plans.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01720

FIELD SERVICES

PART 1- GENERAL

1.01 UTILITY LOCATING

- A. Utility locating is required in execution of Project.
- B. The method of utility locating for the construction of the work shall be at the option of the Contractor, but at a minimum will include contacting Miss Utility.
- C. Water and sewer pipelines will be designated by the Town of Middleburg under the Miss Utility system.
- D. The Contractor shall coordinate the location of all new and replacement fire hydrants, cut-in valves and other appurtenances with the Town of Middleburg as required.
- E. The accuracy of utility locating shall be the responsibility of the Contractor. All engineering for connecting new and replacement appurtenances to existing water and sewer system appurtenances shall be the responsibility of the Contractor.
- F. The Contractor shall be held responsible for the preservation of all utility markings. If any markings are lost, diminished or disturbed, the Contractor shall reestablished such points, markings, lines and other utility designations as may be necessary for the prosecution of the work.
- G. The Contractor shall report to the Engineer when any site condition creates a problem with installing the proposed water system improvements in grades or locations.

1.02 PROJECT SURVEY REQUIREMENTS

- A. The contractor shall be responsible for layout of the water mains.
- B. The contractor shall employ the services of a surveyor, licensed in the Commonwealth of Virginia to lay out the work.

1.03 RECORDS

- A. Maintain complete, accurate sketches of all work completed.

1.04 SUBMITTALS

- A. Submit sketches showing locations of all utilities and structures constructed. These sketches shall be included with the project record documents.

PART 2- PRODUCTS (Not Used)

PART 3- EXECUTION (Not Used)

END OF SECTION

SECTION 01740

CONSTRUCTION CLEANING

PART 1 – GENERAL

1.01 CLEANING DURING CONSTRUCTION

- A. Contractor shall keep construction area and adjacent properties free of accumulations of waste materials, debris, rubbish and wind-blown debris resulting from construction operations.
- B. Contractor shall remove refuse resulting from construction operations from the construction area; Discard materials into dumpster in such manner to completely fill dumpster; and Keep dumpster area clean of debris.
- C. Prior to Substantial Completion, Contractor shall remove unneeded construction tools, equipment, machinery and surplus materials.
- D. Do not burn or bury rubbish and waste materials on project site.
- E. Contractor shall continue construction cleaning on as-needed basis until final completion.

1.02 TRUCKING OF SPOILS

- A. Contractor shall load trucks leaving site in manner that will prevent dropping of materials on streets. Provide suitable tarpaulins fastened over load before entering surrounding paved streets.
- B. Contractor shall comply with local regulations regarding load limits.
- C. Contractor shall sweep streets daily to remove sediment and dirt.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION 01740

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SECTION 01770

RECORD DOCUMENTS

PART 1 - GENERAL

1.01. RECORD DOCUMENTS

The Contractor shall maintain Record Documents according to Section 01330, SUBMITTALS. They shall be available to the Engineer and Owners. Record Documents shall be current through the date of the latest payment request before payment will be made.

1.02. RECORD DRAWINGS

The Contractor shall:

- A. Maintain record copy of:
 - 1. Contract Drawings.
 - 2. Addenda and bulletins.
 - 3. Change orders, field orders, supplemental instructions and other modifications to contract.
 - 4. Approved shop drawings, product data, samples and similar required submittals.
 - 5. Reports of inspection and testing agencies.
 - 6. Inspection certificates.
 - 7. Manufacturer's certificates, manufacturer's instructions and reports of manufacturer's field observations.
 - 8. Other items indicated in various sections within Division 1.
- B. Obtain from the Engineer, one set of Contract Drawings for recording changes and modifications.
- C. Store all record documents and files in office apart from documents used for construction. Provide files and racks for secure storage.
- D. Provide secure storage for all record documents and files and maintain apart from documents used for construction.
- E. Maintain documents and samples in clean, dry and legible condition; do not use for construction purposes.
- F. Label and file documents in accordance with section number listings in Table of Contents of Project Manual. Label each item RECORD DOCUMENT in

stamped or printed letters, including Contractor's name and project number.

- G. Record changes to contract drawings concurrently with construction progress.
- H. Make documents available for review and inspection by Engineer and Owner during entire period of construction.
- I. Have the Engineer review and concur with data placed on drawings. Transmit completed Construction Record Drawings to Construction Manager.

1.03. CLOSE-OUT INSPECTION

Refer to Section 01310, Paragraph 1.03. At the time of the inspection, the Contractor shall submit those documents not previously received and approved by the Engineer. The documents include, but are not necessarily limited to, the following:

- Record Drawings and Record File: The complete set of contract record documents as required in Paragraph 1.02 A & B.
- Operations and Maintenance Instruction Manual: As provided by Manufacturer.
- Warranties and Guarantees.
- Certificates of Compliance: Records of tests required by the various Sections of the Contract Documents.

1.04 CLOSE-OUT PROCEDURES

The Contractor shall:

- A. After receipt and acceptance of any final, closeout change order, prepare final estimate and request for payment based upon last accepted change order. Obtain statement of surety and maintenance bond from surety; execute affidavit in support of final estimate and contractor's release.
- B. Submit the estimate, affidavit, surety's statement and maintenance bond to Engineer for approval and transmittal to owner for final payment. When notified by Engineer that check is drawn, either bring or send executed release to Owner, who will deliver check.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION